

Claims:

1. An isolated human H2R polynucleotide which codes without interruption for an amino acid sequence set forth in SEQ ID NO 2, or a complement thereto.
- 5 2. An isolated human H2R polynucleotide comprising, polynucleotide sequence having 95% or more sequence identity to the polynucleotide sequence set forth in SEQ ID NO 2 and which codes without interruption for H2R, or a complement thereto.
- 10 3. An isolated H2R polynucleotide, comprising:
a polynucleotide coding for amino acids 360-422 of SEQ ID NO 2, specific fragments thereof, or complements thereto
- 15 4. An isolated H2R polynucleotide of claim 3, consisting of:
amino acids 360-422 of SEQ ID NO 2.
5. An isolated H2R polynucleotide of claim 3, wherein said fragment is effective in a polymerase chain reaction.
- 20 6. An isolated human H2R polypeptide coded for a polynucleotide of claim 1, comprising: the amino acid sequence set forth in SEQ ID NO 2.
7. An isolated human H2R polypeptide coded for a polynucleotide of claim 2, comprising: an amino acid sequence having 95% or more sequence identity to the amino acid sequence set forth in SEQ ID NO 2.
- 25 8. An isolated H2R polypeptide coded for by a polynucleotide of claim 3, coding for amino acids 360-422 of SEQ ID NO 2 or specific fragments thereof.
- 30 9. An isolated H2R polypeptide of claim 8, consisting of:
amino acids 360-422 of SEQ ID NO 2.

10. A method for identifying an agent that modulates the biological activity of a human H2R in mammalian cells expressing a human H2R of claim 2, comprising:
5 contacting mammalian cells expressing human H2R with a test agent under conditions effective for said test agent to modulate the biological activity of said human H2R, wherein said cells are transformed with a polynucleotide construct comprising an expressible human H2R polynucleotide, whereby said H2R expression is achieved, and
determining whether said test agent modulates said H2R.

10 11. A method of claim 10, wherein said agent is a polynucleotide coding for a peptide selected from amino acids 360-422 of SEQ ID NO 2.

12. A method of claim 10, wherein said human H2R has the amino acid sequence set forth in SEQ ID NO 2.

15 13. A transformed mammalian cell comprising:
a polynucleotide construct comprising a human H2R polynucleotide of claim 2 operatively linked to expression control sequences.

20 14. A transformed cell of claim 13, wherein said human H2R polynucleotide has the sequence set forth in SEQ ID 1.

15. A transformed cell of claim 13, wherein said human H2R polynucleotide has the amino acid sequence set forth in SEQ ID 2.

25 16. A transformed cell of claim 13, wherein said expressible human H2R polynucleotide is integrated into the chromosome of said cell.

30 17. An isolated antibody which is specific for a polypeptide having amino acids 360-422 of SEQ ID NO 2, or specific fragments thereof.